

CLAIMS

What is claimed is:

1. An electron tube, comprising:

an electrically insulating wall portion;

an electrode formed on an inside portion of said insulating wall portion, the electrode comprising a metallization layer formed on said inside portion of said insulating wall portion; and

an electrical path coupling said electrode to a terminal on an exterior of the tube.

2. An electron tube, comprising:

an electrically insulating wall portion;

an electrode formed on an inside portion of said insulating wall portion, the electrode comprising a metallization layer formed on said inside portion of said insulating wall portion and a cylindrical copper member including a plurality of circularly disposed fingers and slots, said fingers affixed at a distal end thereof to said metallization layer; and

an electrical path coupling said electrode to a terminal on an exterior of the tube.

3. An electron tube in accordance with claim 1, wherein said electrically insulating wall portion comprises a ceramic material.

4. An electron tube in accordance with claim 2, wherein said electrically insulating wall portion comprises a ceramic material.
5. An electron tube in accordance with claim 3 wherein said tube further comprises a fluid cooling apparatus in thermal contact with an exterior of said tube.
6. An electron tube in accordance with claim 4 wherein said tube further comprises a fluid cooling apparatus in thermal contact with an exterior of said tube.
7. An electron tube in accordance with claim 5 wherein said ceramic comprises a material selected from the group consisting of: aluminum oxide, beryllium oxide and aluminum nitride.
8. An electron tube in accordance with claim 6 wherein said tube further comprises a fluid cooling apparatus in thermal contact with an exterior of said tube.
9. An electron tube, comprising:
a linear beam electron tube, comprising:
vacuum envelope means for maintaining a vacuum in the tube, said vacuum envelope means including an electrically insulating wall portion;
means for conducting electricity disposed on an inside of said insulating wall portion; and
terminal means disposed on an outside of said insulating wall portion and electrically coupled to said means for conducting electricity.

10. The electron tube of claim 9, wherein said means for conducting electricity comprises a layer of metallization.

11. The electron tube of claim 9, wherein said means for conducting electricity comprises a cylindrical copper member having a plurality of circularly disposed fingers and slots.

12. The electron tube of claim 11, wherein distal ends of said fingers are brazed to said insulating wall portion.

13. The electron tube of claim 10, wherein said means for conducting electricity comprises a cylindrical copper member having a plurality of circularly disposed fingers and slots and wherein distal ends of said fingers are brazed to said layer of metallization.

14. The apparatus of claim 12, wherein said vacuum envelope means comprises a ceramic material.

15. The apparatus of claim 13, wherein said vacuum envelope means comprises a ceramic material.